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10/031,276	05/30/2002	R. Knox Pitzer	A99084WO	6216

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EXAMINER

EASHOO, MARK

ART UNIT PAPER NUMBER

1732

DATE MAILED: 08/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/031,276

Applicant(s)

PITZER ET AL.

Examiner

Mark Eashoo, Ph.D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04-NOV-2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 15-19 is/are rejected.
- 7) ☒ Claim(s) 11-13, 20-21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/02
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Information Disclosure Statement*

The information disclosure statements filed 07-FEB-2002 and 04-NOV-2002 comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. Accordingly, they have been placed in the application file and the information referred to therein has been considered as to the merits. have been considered.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 3-7 are rejected under 35 USC 102(b) as being anticipated by Schlameus et al. (US Pat. 5,897,732).

Regarding claim 1: Schlameus et al. teaches the claimed method of making a heat transfer assembly, comprising: providing a tubular element (Fig. 1, element T); covering a tubular element with a layer of insulation (Fig. 1, element M); wrapping a layer of insulating material with a tape (Fig. 1, element W); and tensioning the tape so that the insulating material is compressed to a desired degree (7:3-10 and 7:25-45).

Regarding claim 3: Schlameus et al. further teaches coating the tape (7:52-57).

Regarding claim 4: It is inherent of Schlameus et al. that the tube is made of a material suitable for use with saturated steam, including copper, stainless steel, metals and plastics (1:20-45 and 8:5-10).

Regarding claim 5: Schlameus et al. further teaches flexible fibrous insulating material, including fiberglass (1:64-2:6 and 8:15).

Regarding claim 6: Schlameus et al. further teaches linearly wrapping the insulating material about a tube (Fig. 3).

Regarding claim 7: Schlameus et al. further teaches helical wound insulation (2:12-24).

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Claims 14 and 15 are rejected under 35 USC 102(b) as being anticipated by Schlameus et al. (US Pat. 5,897,732).

Regarding claim 14: Schlameus et al. teaches the claimed isolated tracer (1:35), comprising: a tube for conveying a heated fluid (Fig. 1, element T); a layer of insulation covering the tube (Fig. 1, element M); a tape wrapped around the insulation such that the insulation is compressed to a desired thickness (7:3-10, 7:25-45, and Fig. 3, element W).

Regarding claim 15: Schlameus et al. further teaches coating the tape (7:52-57).

Claims 16-19 are rejected under 35 USC 102(b) as being anticipated by Schlameus et al. (US Pat. 5,897,732).

Regarding claims 16 and 17: Schlameus et al. teaches the claimed method of making an isolated tracer (1:35), comprising: passing a tube through a funnel shaped die (Fig. 1, elements T and 12); passing and compressing an insulating material through the die (Fig. 1, elements M and 12); and compressing the insulating material a second amount after the insulation exits the die with tape (Fig. 3, element W). It is inherent that the process of applying the tape causes at least a very small amount of compression since the tape is pulled from the spool as it wound about the insulation. Furthermore, since Schlameus et al. desires to get a desired uniform thickness of insulation the thermal conductance is considered predetermined.

Regarding claim 18: Since Schlameus et al. desires to get a uniform thickness of insulation by applying a tape, W, it is inherent that the tape tension would have to be adjusted accordingly.

Regarding claim 19: Schlameus et al. further teaches coating the tape (7:52-57).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been

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obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 2 is rejected under 35 USC 103(a) as unpatentable over Schlameus et al. (US Pat. 5,897,732) in view of Barth et al. (US Pat. 5,086,836).

Regarding claim 2: Schlameus et al. teaches the basic claimed process as set forth above, regarding claim 1. However, Schlameus et al. does not teach a conductance in the range of 0.105 – 0.46 Btu/hr-ft-F. Nonetheless, Barth et al. teaches a conductance in the range of 0.105 – 0.46 Btu/hr-ft-F (7:40-50). Schlameus et al. and Barth et al. are combinable because they are from the same field of endeavor, namely, insulated piping. At the time of invention a person of ordinary skill in the art would have found it obvious to have made a tracer having a conductance in the range of 0.105 – 0.46 Btu/hr-ft-F, as taught by Barth et al., in the process of Schlameus et al., since Barth et al. suggests that tracers having such conductance have commercial value.

Claim 8 is rejected under 35 USC 103(a) as unpatentable over Schlameus et al. (US Pat. 5,897,732) in view of Nippe (US Pat. 4,590,108).

Regarding claim 8: Schlameus et al. teaches the basic claimed process as set forth above, regarding claim 1. However, Schlameus et al. does not teach wrapping multiple layers of insulation using a combination of linear and helical wrapping. Nonetheless, Nippe teaches wrapping multiple layers of insulation (Figs. 6-7). Schlameus et al. and Nippe are combinable because they are from the same field of endeavor, namely, insulated piping. At the time of invention a person of ordinary skill in the art would have found it obvious to have used multiple layers of insulation, as taught by Nippe, in the process of Schlameus et al., since Nippe suggests that layered insulation

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allows the insertion of multiple vapor barriers. It is noted that Schlameus et al. suggest that linear and helical wrappings are equivalent alternative ways of wrapping insulation.

Claims 9-10 are rejected under 35 USC 103(a) as unpatentable over Schlameus et al. (US Pat. 5,897,732).

Regarding claims 9-10: Schlameus et al. teaches the basic claimed process as set forth above, regarding claims 1 and 3.

However, Schlameus et al. does not teach metalized or unmetalized plastic tapes or a silicone rubber coating. Nonetheless, metalized or unmetalized plastic tapes and silicone rubber coatings are well known in the art. At the time of invention a person of ordinary skill in the art would have found it obvious to have used such well known materials, in the process of Schlameus et al., in order to provide specific and desired barrier properties associated with such materials.

#### ***Allowable Subject Matter***

Claims 11-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of teach or render obvious the claimed process comprising: the calculation of approximate conductance rates for multiple pipe sizes.

Claims 20-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of teach or render obvious the claimed process comprising: the determination of a conductance rate and adjusting the tape tension thereto and/or a difference in compression between first and second amounts by at least 10%.

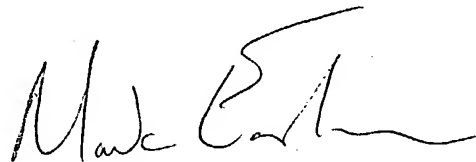
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*Correspondence*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Eashoo, Ph.D. whose telephone number is (571) 272-1197. The examiner can normally be reached on 7am-3pm EST, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaiaanni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mark Eashoo, Ph.D.  
Primary Examiner  
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08/ Aug 10/04

9-Aug-04  
me